REMARKS

Claims 3-22 and 31 are pending in the application.

Claims 3-22 and 31 have been rejected.

Claims 3, 19-21 and 31 have been amended.

Unless otherwise specified in the below discussion, Applicants have amended the above-referenced claims in order to provide clarity or to correct informalities in the claims. Applicants further submit that, unless discussed below, these amendments are not intended to narrow the scope of the claims. By these amendments, Applicants do not concede that the cited art is prior to any invention now or previously claimed. Applicants further reserve the right to pursue the original versions of the claims in the future, for example, in a continuing application.

Specification

The Specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. The basis of this rejection is "what comprises a computer-readable medium is not in the specification." Applicants have amended Claims 19 and 20 to reflect a computer-readable storage medium, rather than a computer-readable medium. Applicants respectfully submit that at least paragraph [0020] of the originally-filed Application provides support for this amendment. Application, ¶ [0020] ("a computer-readable media drive 104, such as a CD-ROM drive, for reading programs and data stored on a computer-readable medium"). The cited section of the Application not only specifies that the computer-readable medium be a storage medium (thereby

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eliminating transient computer-readable media) but also provides an exemplar of such a computer-readable storage medium (e.g., "a CD-ROM").

For at least these reasons, Applicants respectfully submit that the objections raised by the Office Action to the specification have been rendered moot.

Rejection of Claims Under 35 U.S.C. §112

Claims 3 and 31 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants respectfully traverse this rejection.

The basis of this rejection, as stated by the Office Action, is that the preamble phrase of both Claims 3 and 31 provide for "a method in a computing system for processing a relational query," which the Office Action purports "to be claiming two different statutory classes." *See* Office Action, pp.2-3.

Without conceding to the Office Action's proposition that the original preamble of these claims provides such confusion, but in the interest of further prosecution, Applicants have amended the preambles of independent Claims 3 and 31 to provide "a method for processing a relational query." Applicants respectfully submit that this amendment is responsive to the rejection raised by the Office Action. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

Rejection of Claims Under 35 U.S.C. §101

Claims 3-18, 21-22 and 31 stand rejected under 35 U.S.C. §101 for the purported reason that the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment, or machine which would result in a practical application, produce a concrete, useful and tangible result to form the basis of statutory subject matter under 35 U.S.C. §101. Applicants respectfully traverse this rejection.

The Office Action rejects Claims 21 and 22 on the basis that "claim 21 fails to contain any computer hardware that is used to implement the system so as to realize the functionality." *See* Office Action, p.4. Applicants have amended independent Claim 21 to include hardware element limitations (e.g., a processor and a display) and provides for interaction between the remaining limitations and those hardware elements.

The Office Action rejects Claims 3-18 and 31 on the basis that, *e.g.,* "claim 3 fails to contain any computer hardware that is used to implement the system so as to realize its functionality." As an initial matter, Applicants call to the Examiner's attention that independent Claim 3, as amended, is directed to a method. As such, no hardware limitations need to be provided, and in fact, would be improper. *Cf. IPXL Holdings v. Amazon*, Case Nos. 05-0119, -1487 (Fed. Cir. Nov. 21, 2005) (holding that a mixed method-apparatus claim is indefinite).

Without conceding to the position of the Office Action, but with an intent to further prosecution, Applicants have amended independent Claims 3 and 31 to provide limitations for displaying results of the claimed searches. Such display limitations reinforce the previously claimed displaying of the presentation layer. Applicants respectfully submit that such displaying has been held to be a tangible effect within the

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statutory definition of 35 U.S.C. § 101. *See, e.g., In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994).

Applicants note that the Office Action purports that "software per se" is unpatentable. Applicants are unaware of any decisional law from either the Court of Appeals for the Federal Circuit or the U.S. Supreme Court that has provided for such a proposition, and is only aware of decisions from these courts holding just the opposite. The Office Action itself has offered no supporting citation for such a position. Applicants therefore respectfully request, should the Examiner wish to continue to reject claims on the basis that "software per se" is unpatentable and that the claims reflect "software per se," that the Examiner provide a citation to a source substantiating this position.

For at least these reasons, Applicants submit that Claims 3-18, 21-22 and 31, as amended, reflect patentable subject matter under 35 U.S.C. § 101 and are in condition for allowance. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

Rejection of Claims Under 35 U.S.C. §103

Claims 3, 6, 7, 8, 10, 15, 16, 17-22 and 31 stand rejected under 35 U.S.C. §103(a) as purportedly being unpatentable over U.S. Patent Application Publication No. 2004/0236767 naming Soylemez et al. as inventors ("Soylemez"), and further in view of U.S. Patent Application Publication No. 2002/0091681 naming Cras et al. as inventors ("Cras"). Applicants respectfully traverse these rejections.

In order for a claim to be rendered invalid under 35 U.S.C. §103, the subject matter of the claim as a whole would have to be obvious to a person of ordinary skill in

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the art at the time the invention was made. *See* 35 U.S.C. §103(a). This requires: (1) the reference(s) must teach or suggest all of the claim limitations; (2) there must be some teaching, suggestion or motivation to combine references either in the references themselves or in the knowledge of the art; and (3) there must be a reasonable expectation of success. *See* MPEP 2143; MPEP 2143.03; *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998).

As an initial matter, Applicants note that the filing data of the present Application is December 1, 2003. The face of the Soylemez purports a non-provisional filing date of July 26, 2004, which is after the filing date of the present Application. The face of Soylemez also claims priority to a provisional application (60/469,032) purportedly filed May 7, 2003. Thus, in order for Soylemez to be used as prior art against the present Application, support for the matter in Soylemez cited against the present Application must be found in provisional application 60/469,032. It is the Examiner's burden to establish support for the cited sections can be found in the provisional application. Without such support, Soylemez fails to be prior art to the present application. Applicants respectfully request the Examiner provide citation to text within the provisional application that the Examiner purports to support the material of the sections of Soylemez cited against the present Application.

Independent Claims 3, 19, 21 and 31, as amended, each contain limitations of substantially the following form:

> generating a relational model of a multidimensional data source using one or more of a schema for the multidimensional data source and metadata for the multidimensional data source, wherein
>> the relational model comprises a relational-to-multidimensional mapping between a virtual relational table corresponding to the multidimensional data source and the multidimensional data source, and

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the schema and metadata are accessed from the multidimensional data source.

See, e.g., Claim 3 (amended). Applicants respectfully submit that neither Soylemez nor Cras, alone or in combination, provides disclosure of at least these limitations.

The Office Action correlates Soylemez's "virtual return table" with the claimed relational model. *See* Office Action, p.6 (citing Soylemez, ¶¶ [0018], [0020]). Soylemez provides that the "virtual return table" is populated by a "table function." *See* Soylemez, ¶ [0074]. Soylemez's "table function" is defined to "produce a collection of rows that can be queried like a database table." Soylemez, ¶ [0040]. Soylemez further provides:

> The table function may operate with one or more input parameters that specify (1) the name of the analytic workspace in which the source data (also referred to as data objects and data items) is stored; (2) the name of a virtual relational table that has been defined to organize the multidimensional data in tabular form; and (3) a mapping of the source data objects to target columns in the table.

Soylemez, ¶ [0045]. Thus, Soylemez's purportedly "table function" maps data from the multidimensional source to a virtual relational table.

Soylemez fails to provide any disclosure that the "table function" uses one or more of a schema for the multidimensional data source and metadata for the multidimensional data source accessed from the multidimensional data source in order to generate the virtual return table. The provided parameters to the "table function" do not expressly depend upon the multidimensional schema or metadata, nor do they necessarily depend upon the multidimensional schema or metadata. Soylemez further fails to provide any indication of from where the input parameters for the "table function" are provided. There is no indication that these are provided by accessing the multidimensional data source itself.

The Office Action cites to Soylemez, ¶ [0018] as purported disclosure of Soylemez's "virtual return table" being generated by a schema or metadata of the multidimensional data source. *See* Office Action, pp.41-42. But the cited section merely states that "[t]he multidimensional data is stored according to a multidimensional schema." Soylemez, ¶ [0018]. There is no disclosure in the cited section that Soylemez's "virtual return table" is generated by the schema and/or metadata of the multidimensional data source. Instead, Soylemez discloses that the "virtual return table" is generated by a table function. *See, e.g.*, Soylemez, ¶¶ [0040], [0042]-[0043] ("a query is received at block 202 that includes a table function that extracts multidimensional data from a multidimensional schema construct"). The table function input parameters are described by Soylemez as purportedly including: (1) a name of an analytic workspace in which the source data is stored, (2) a name of a virtual relational table defined to organize the multidimensional data in tabular form, (3) a mapping of source data objects to target columns in the table, and (4) a command that may be used to limit one or more dimensions to a particular level of the dimension's hierarchical structure. *See* Soylemez, ¶¶ [0045]-[0046]. None of these input parameters are schema or metadata of the multidimensional data source provided to generate the "virtual return table." Thus, the cited section of Soylemez fails to disclose the claimed "generating a relational model of a multidimensional data source using ... a schema for the multidimensional data source."

The Office Action also cites to Soylemez, ¶ [0019] for the proposition that it discloses the claimed "generating a relational model of a multidimensional data source using ... metadata for the multidimensional data source." *See* Office Action, p.42. The cited section of Soylemez provides:

> According to one aspect of the invention, the multidimensional database server performs various operations to reduce the amount of data that is

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> passed to the relational database server and/or to reduce the amount of
> computation required of the relational database server to process the
> relational database statement. As shall be described in greater detail
> hereafter, the operations include (a) limiting the extraction to only a subset
> of the multidimensional cube (i.e., n-dimensional data objects), (b)
> selecting only those cells within the subset that satisfy certain criteria, and
> (c) from the selected cells, only extracting those values that will be
> required by the relational database server to process the relational database
> statement in question.

Soylemez, ¶ [0019] (emphasis added). Applicants submit that Soylemez's "selecting only those cells within the subset that satisfy certain criteria" is not using metadata as posited by the Office Action. Instead, Soylemez describes this selection of cells as being dictated by criteria specified in a query compared to values in the cells, and not metadata in the multidimensional data source. See, e.g., Soylemez, ¶ [0049] ("At block 206, a filtered set of one or more values is generated, generally, by comparing certain values in certain cells of the data subset to value-filtering criteria specified in the query."). Soylemez further states that such cell filtering can be dimension based or measure based. See Soylemez, ¶ [0052]. Neither dimension-based nor measure-based cell filtering is described by Soylemez as being dictated by metadata of the multidimensional data source. See Soylemez, ¶¶ [0055]-[0060]. Thus, the cited "selecting only those cells within the subset that satisfy certain criteria" fails to disclose the claimed "generating a relational model of a multidimensional data source using ... metadata for the multidimensional data source."

The Office Action cites to Cras for the proposition that Cras provides disclosure of the claimed graphical user interface. The Office Action does not cite Cras for disclosure of generating a relational model, as claimed.

Applicants further note that the cited sections of Cras (¶¶ [0074]-[0075]) do not provide disclosure of the graphical user interface either, but merely to a purported

"normalized model". Further, to the degree that the cited sections of Cras do involve a graphical user interface, there is no indication from the cited sections that it permits "pointer-driven selection for database query of one or more tables and columns of data stored in the multidimensional data source and represented by the displayed presentation layer," as claimed. The Office Action suggests that the cited sections of Cras provide for "drag and drop." But the cited section merely states the following: "The rules according to the present invention automate the transformation of a relational model into an OLAP model and use the relational schema shown in FIG.6 as an example." Cras, ¶ [0075]. Applicants respectfully submit that this section of Cras fails to provide any disclosure of "drag and drop" or even a graphical user interface at all.

For at least these reasons, Applicants submit that neither Soylemez nor Cras, alone or in combination, provide disclosure of all the limitations of independent Claims 3, 19, 21 and 31, as amended, and all claims depending therefrom, and that these claims are in condition for allowance. Applicants therefore respectfully request the Examiner's reconsideration and withdrawal of the rejections to these claims and an indication of the allowability of same.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5090.

If any extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicant hereby petitions for such extensions. Applicant also hereby authorizes that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to deposit account 502306.

Respectfully submitted,

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